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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,345	08/18/2006	Mi Kyoung Park	YPLE.0014	4591

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EXAMINER
BROWN, VERNAL U

ART UNIT	PAPER NUMBER
2612	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/551,345	PARK ET AL..
	Examiner	Art Unit	
	VERNAL U. BROWN	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>28 September 2005</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-61</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) <u>16-26</u> is/are allowed.

6) ☒ Claim(s) <u>1,6,11-28,35-46 and 50-61</u> is/are rejected.

7) ☒ Claim(s) <u>2-5,7-10,29-34 and 47-49</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>28 September 2005</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

       1. ☒ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

The application of Seocho-Gun for Contact less Type Communication Tag, Portable Tag

Reader for Verifying a genuine Article, And Method for Providing Information of Whether an

Article is Genuine or Not filed 8/18/06 has been examined. Claims 1-61 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 45 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing

to particularly point out and distinctly claim the subject matter which applicant regards as the

invention.

Regarding claim 45, the limitation the portable tag reader is similar to a thin type battery

does not provide a definite definition of the thickness of the RFID reader.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5, 11-14, 46, 56-57 are rejected under 35 U.S.C. 102(e) as being anticipated by Hughes et al. US Patent 6842106.

Regarding claims 1, 46, Hughes teaches a contact less communication tag comprising:

contact less communication unit which wirelessly exchanges data with a tag reader (col. 5 lines 1-7), creates a power source from a power signal received from the tag reader (col. 2 lines 15-22);

A storing unit in which the product information an encryption key related information are stored (col. 2 lines 33-47, fig. 2);

An encryption unit, which encrypts the product information to be transmitted to the tag reader based on the encryption key related information (col. 6 lines 7-34).

Regarding claim 5, Hughes teaches the encryption unit provides the product information to the tag reader after encrypting the product information using the selected encryption key (col. 2 lines 33-47);

Regarding claim 11, Hughes teaches the memory is non-volatile because the tag transmit the data stored in the tag when the powering signal is received from the reader which inherently include the storing of the data in the tag memory in the absent of the powering signal (col. 1 lines 28-37) and teaches a processing unit that reads the product information from the memory (col. 5 lines 51-64).

Regarding claims 12-14, 53, Hughes teaches a generating a one time use random number, adds the one time use random number to information to be transmitted to the tag reader, provides the number to the encryption unit, and check if a random number extracted from information received from the tag reader is the same as the one time use random number (col. 7 lines 16-31).

Regarding claim 56-57, Hughes teaches authenticating an external portable tag reader by communicating with the external portable tag reader; and outputting a result of authentication concerning the external portable tag reader (col. 7 lines 16-31).

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et al. US Patent 6842106 in view of Stewart et al. US Patent 6933848.

Regarding claim 15, Hughes is silent on teaching the tag is destroyed so as not to be accessed by the tag reader when the product is unsealed. Stewart et al. in an analogous art teaches destroying the tag so as to prevent the tag from been read by the tag reader (col. 3 lines 23-62).

It would have been obvious to one of ordinary skill in the art to modify the system of Hughes et al. as disclosed by Stewart et al. destroying the tag increases the security of the RFID tag by preventing the possible unauthorized reading of the tag.

Claims 27-28, 35-36, 38-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et al. US Patent 6842106 in view of Carrender et al. US Patent 5850187.

Regarding claims 27-28, 38-44, Hughes teaches a tag reader comprising:

a storing unit in which an encryption key is stored (col. 5 lines 46-47);

a decryption unit, which decrypts data received from the contact less communication

tag based on encryption key related information that is selected from the encryption key

related information and an information reading unit, which requests product information to the

contact less communication tag attached to a product and reads the product information received

from the contact less communication tag (col. 5 line 65-col. 6 line 52). Hughes is silent on

teaching the tag reader is portable. Carrender et al. in an analogous art teaches a portable tag

reader (abstract). Carrender also teaches a display for outputting information (col. 5 line 62-col.

6 line 6).

It would have been obvious to one of ordinary skill in the art to modify the system of

Hughes as disclosed by Carrender because a portable tag reader is more convenient to operate

and is more adaptable to the application environment in which the tag reader is used.

Regarding claim 35, Hughes teaches a generating a one time use random number, adds

the one time use random number to information to be transmitted to the tag reader, provides the

number to the encryption unit, and check if a random number extracted from information

received from the tag reader is the same as the one time use random number (col. 7 lines 16-31).

Regarding claim 36, Hughes teaches the memory is non-volatile because the tag transmit

the data stored in the tag when the powering signal is received from the reader which inherently

include the storing of the data in the tag memory in the absent of the powering signal (col. 1 lines

28-37) and teaches a processing unit that reads the product information from the memory (col. 5

lines 51-64).

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et al. US

Patent 6842106 in view of Carrender et al. US Patent 5850187 and further in view of Mays et al.

US Patent 6838989.

Regarding claim 37, Hughes in view of Carrender is silent on teaching the decryption

unit; the storing unit is implemented in a ASIC. Mays et al. in an analogous art teaches

implementing the functional circuits of RF tag reader in a ASIC (col. 6 lines 1-5).

It would have been obvious to one of ordinary skill in the art to modify the system of

Hughes in view of Carrender as disclosed by Mays et al. because the ASIC provides a more

economic means of packaging the function circuit into a single package.

Claims 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et

al. US Patent 6842106 in view of Brown et al. US Patent 6909356.

Regarding claims 58-60, Hughes teaches a contact less communication tag comprising:

contact less communication unit which wirelessly exchanges data with a tag reader (col. 5

lines 1-7), creates a power source from a power signal received from the tag reader (col. 2 lines

15-22);

A storing unit in which the product information an encryption key related information are

stored (col. 2 lines 33-47, fig. 2);

An encryption unit, which encrypts the product information to be transmitted to the tag

reader based on the encryption key related information (col. 6 lines 7-34). Hughes teaches the

encryption unit provides the product information to the tag reader after encrypting the product

information using the selected encryption key (col. 2 lines 33-47). Hughes is silent on teaching

visible information corresponding to the product information. Brown et al. teaches using a barcode in addition to a RF tag to provide product information (col. 7 lines 21-35).

It would have been obvious to one of ordinary skill in the art to modify the system of Hughes as disclosed by Brown because the RF tag and the barcode label provides multiple modes of identification and provides for a more adaptable system for ensuring the tracking of the object.

Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et al. US Patent 6842106 in view of Brown et al. US Patent 6909356 and further in view of Stewart et al. US Patent 6933848.

. Regarding claim 61, Hughes is silent on teaching the tag is destroyed so as not to be accessed by the tag reader when the product is unsealed. Stewart et al. in an analogous art teaches destroying the tag so as to prevent the tag from been read by the tag reader (col. 3 lines 23-62).

It would have been obvious to one of ordinary skill in the art to modify the system of Hughes et al. in view of Brown as disclosed by Stewart et al. destroying the tag increases the security of the RFID tag by preventing the possible unauthorized reading of the tag.

Allowable Subject Matter

Claims 2-5, 7-10, 30-34, 47-52, 54-55 are objected to as being dependent upon a rejected

base claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

Regarding claim 2, the prior art of record fail to teach or suggest the encryption unit

provides the encryption key index information corresponding to the encryption key in response

to an encryption key specifying request message received from the tag reader.

Regarding claims 3-5, the prior art of record fail to teach or suggest the encryption unit

provides the seed value index information corresponding to the seed in response to an encryption

key specifying request message received from the tag reader.

Regarding claims 7-9, 30-34, the prior art of record fail to teach or suggest the encryption

key related information includes a plurality of seed values for creation of an encryption key

and seed value index information indicating storing locations of the plurality of seed values in

a storing means included in the tag reader; and the encryption unit provides seed value index

information corresponding to a seed value selected from the plurality of seed values in response

to an encryption key specifying request message received from the tag reader.

Regarding claim 10, the prior art of record fail to teach or suggest leaked encryption key

updating unit, which transmit update request information that requests discarding of an

encryption key leaked through the contact less communication unit and updating into a newly

assigned encryption key to the tag reader.

Regarding claim 29, the prior art of record fail to teach or suggest a leaked

encryption key updating unit that upon receipt of encryption key update request information

concerning a leaked encryption key from the contact less communication tag, discards an

encryption key designated by the encryption key update request information from the storing unit

and updates with a newly assigned encryption key.

Regarding claim 47, the prior art of record fail to teach or suggests receiving encryption

key update request information concerning a leaked encryption key from the contact less

communication tag; and removing an encryption key designated by the encryption key update

request information from the storing means and updating with a newly assigned encryption key.

Regarding claim 48, the prior art of record fail to teach or suggests the encryption key

related information includes a plurality of encryption keys that is classified and assigned

according to a classification reference including at least one of a type of industry, a

manufacturer, a brand, and a product name; and the decryption unit decrypts the product

information received from the contact less communication tag using an encryption key selected

from the plurality of encryption keys based on the encryption key specifying information

received from the contact less communication tag.

Regarding claim 49, the prior art of record fail to teach or suggests the encryption key

related information includes at least one seed value for creation of different encryption keys; and

reading of the product information includes decrypting the product information received from the

contact less communication tag using an encryption key using a seed value selected based on the

encryption key specifying information received from the contact less communication tag.

Claims 16-26 are allowed.

Regarding claims 16-26, the prior art of record fail to teach or suggests rejecting

provision of the product information if the number of times the product information is read

exceeds a reference value.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to VERNAL U. BROWN whose telephone number is (571)272-

3060. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Brian Zimmerman can be reached on 571-272-3059. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vernal U Brown/
Primary Examiner, Art Unit 2612